Title: PACE/OCI Mechanical Systems Support

Statement of Work

Item Description	Applicable Contract Function
1 Subtask 1Opto-Mechanical Support	Implementation Phase Services – Mechanical Systems Disciplines

1	•
Performance Requirements	Delivery Schedule:
Part-time Opto-mechanical Engineer/designer supporting the Flight Fiber-Optic Mechanical Packaging. Opto-Mechanical engineer will be responsible for the development, design and optimization of OCI precision thermal Opto-Mechanical sub-assemblies. Opto-Mechanical support will be responsible for providing CAD models and detailed fabrication drawings. The Opto-Mechanical engineer shall attend Opto-mechanical and Fiber Optics meetings as required by the OCI Leads. The Opto-Mechanical engineer shall provide support for Instrument Critical Design reviews, Engineering Peer Design reviews, and Manufacturing Readiness reviews as required by the OCI Mechanical Lead.	10 Month(s)
New scope for part-time Opto-Mechanical Engineering support for the depolarizer assembly and collimator slit assembly. Engineer will work with the lead on qualification testing of a prototype depolarizer assembly and ETU Collimator Slit assembly. Engineer will work with multidiscipline teams to facilitate assembly activities and testing to meet schedule goals. Engineer will help coordinate flight design updates, fabrication and assembly.	10 Month(s)

Item	Description	Applicable Contract Function
2	SUBTASK 3-Mechanical Systems Support	Implementation Phase Services – Mechanical Systems Disciplines

Performance Requirements	Delivery Schedule:
OCI Mechanical Lead designer responsible for providing onsite design (CREO) support to mature the Flight instrument design for Instrument Critical Design Review and subsystem level Engineering Peer Reviews. Provide design support to include modelling, tolerance stack-up studies, and creation of fabrication and assembly drawings. Work to include more detailed models of the Rotating Telescope and Half Angle Mirror mechanisms, overall system architecture and Main Optical Bench Assembly. Required knowledge of the existing OCI instrument and attructural requirements of the instrument	10 Month(s)
optical, thermal, and structural requirements of the instrument. Knowledge of GSFC Code 544 design practices,	

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precision mechanism design, and precision opto-thermo- mechanical structures design and knowledge of alignment techniques and methods which can be extended to spaceflight instrument structures. Must be able to efficiently interact with multiple technical disciplines to assure the critical requirements are implemented into the design. Monthly Models shall be delivered to indicate the work performed during that month	
OCI Mechanism Design Support:	9 Month(s)
Provide Mechanism design support to mature the PACE Ocean Color Instrument	
Flight Mechanisms development. Mechanism Designer will be responsible for	
working with OCI	
mechanism engineers on the development, design and optimization of OCI Flight	
Rotating Telescope Mechanism and Half Angle Mirror Mechanism precision assemblies. Mechanism designer is required to already have working knowledge of the OCI RTA ar HAM Mechanisms. Mechanism designer will be responsible for providing CAD models in CREO as well as ICD's, detailed fabrication drawings, and assembly drawings. Mechanism designer will assist in the development of	
Assembly procedures and WOA's. The Mechanism Designer	
shall attend OCI Mechanism Weekly meetings as required by the OCI Mechanisms Lead. The	ne
Mechanism Designer shall provide support for Engineering Peer Design reviews as	
required by the OCI	
Mechanisms Lead. The mechanism Designer shall be onsite	
OCI Front End Opto-mechanical Assemblies (Telescope Assembly, Depolarizer Assembly, Collimator/Slit Assembly) Design Support: Provide Opto-Mechanical design support to mature the PACE	9 Month(s)
Ocean Color	
Instrument Flight development. Opto-Mechanical designer will be responsible for working	pe
with OCI Opto-Mechanical engineers on the development,	
design and optimization of OCI precision thermal Opto-Mechanical sub-assemblies. Opto-mechanical	
designer is required to already be knowledgeable of the OCI ETU Rotating	
Telescope Assembly and OCI ETU Collimator Slit Assembly.	
Opto-Mechanical designer will be responsible for providing CAI models in CREO as well as ICD's, detailed fabrication drawings and assembly drawings. Opto-Mechanical designer will assist in the development of Assembly procedures and WOA's. The	5,
Opto-Mechanical designer shall attend OCI Opto-Mechanical Weekly and Optics	

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Weekly meetings as required by the OCI Mechanical Lead. The Opto-Mechanical designer shall provide support for Engineering Peer Design reviews as required. The Opto-Mechanical designer shall be onsite. Opto-Mechanical designer must be	
able to efficiently interact with multiple technical disciplines to assure the critical requirements are implemented into the design	
Opto-Mechanical Designer supporting OCI UVVIS and VISNIR Opto-mechanical Assemblies Provide Opto-Mechanical design support to further the Flight PACE Ocean Color Instrument development. Opto-Mechanical designer will be responsible for working with OCI Opto-Mechanical engineers on the development, design and optimization of OCI precision thermal Opto-Mechanical sub-assemblies. Opto-Mechanical designer will be responsible for providing CAD models in CREO as well as ICD's, detailed fabrication drawings, and assembly drawings. Opto-Mechanical designer will assist in the development of Assembly procedures and WOA's. The Opto-Mechanical designer shall attend OCI Opto-Mechanical Weekly and Optics Weekly meetings as required by the OCI Mechanical Lead. The Opto-Mechanical designer shall provide support for Engineering Peer Design reviews as required. The Opto-Mechanical designer shall be onsite. Opto-Mechanical designer must be able to efficiently interact with multiple technical disciplines to assure the critical requirements are implemented into the design	Month(s)